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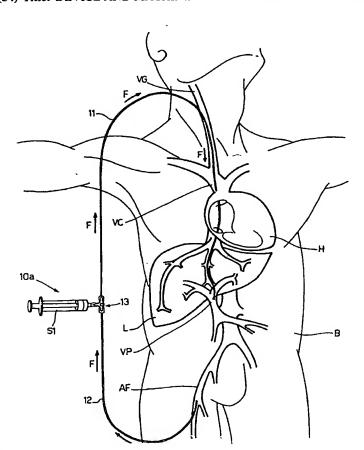
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[Continued on next page]

(54) Title: DEVICE AND MACHINE FOR REGENERATING A HUMAN LIVER



(57) Abstract: Device (10) and machine (1000) for regeneration of a human liver (L). the device (10) comprises at least two catheters (11, 12) and a three-way connection (13) between the two catheters (11, 12).

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(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

#### Declaration under Rule 4.17:

— as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, OB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ,

SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

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A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 A61M1/36 A61M39/22

According to International Patent Classification (IPC) or to both national classification and IPC

### B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Χ .	US 5 800 374 A (BEYERSDORF FRIEDHELM) 1 September 1998 (1998-09-01) column 2, line 60 - column 3, line 21; figures	1-4,6-8, 10
X	EP 0 364 799 A (BGH MEDICAL PRODUCTS) 25 April 1990 (1990-04-25) column 11, line 46 - line 51; figures	1-8,10, 11
Α	DE 198 23 146 C (PAJUNK HEINRICH ; PAJUNK HORST (DE)) 8 July 1999 (1999-07-08) column 2, line 54 - column 3, line 10; figures	1-4
A	US 4 865 583 A (TU HO C) 12 September 1989 (1989-09-12) column 4, line 37 - column 5, line 12; figures	1-4

Further documents are listed in the continuation of box C.	X Patent family members are listed in annex.		
"A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention  "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone  "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.  "&" document member of the same patent family		
Date of the actual completion of the international search  24 February 2005	Date of mailing of the international search report  0 3 NAA 2005 (03.8.05)		
Name and mailing address of the ISA  European Patent Office, P.B. 5818 Patentlaan 2  NL – 2280 HV Rijswijk  Tel. (+31–70) 340–2040, Tx. 31 651 epo nl,  Fax: (+31–70) 340–3016	Authorized officer  Kousouretas, I		

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	citation) DOCUMENTS CONSIDERED TO BE RELEVANT  Citation of document, with Indication, where appropriate, of the relevant passages	(R	elevant to claim No.			
Category °	Citation of Gocument, with indication, where appropriate, or the relevant possessor					
1	US 4 950 230 A (KENDELL LAMAR C) 21 August 1996 (1990-08-21) abstract; figures		1-4			
4	US 5 449 342 A (HIROSE TERUO ET AL) 12 September 1995 (1995-09-12) column 5, line 39 - line 50; figures		1,5			
(	US 2002/077581 A1 (DAVIDNER ALAN ET AL) 20 June 2002 (2002-06-20) paragraphs '0024! - '0033!; figures		11–15			
À .	EP 1 132 101 A (NIKKISO COMPANY, LTD; OHTA, TOMIO) 12 September 2001 (2001-09-12) the whole document	·	11–17			
	·		•			
		i				

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Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)
This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:
1. X Claims Nos.: 9,18-23 because they relate to subject matter not required to be searched by this Authority, namely:  Rule 39(iv) PCT - Method for treatment of the human or animal body by surgery
Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).
Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)
This International Searching Authority found multiple inventions in this international application, as follows:
see additional sheet
1. X As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
Remark on Protest  The additional search fees were accompanied by the applicant's protest.  X  No protest accompanied the payment of additional search fees.

### FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-8,10

Device for arterialization comprising at least two catheters and a (three way) connection between said catheters.

2. claims: 11-17

Machine for regeneration comprising at least two catheters, an extracorporeal circuit to connect the catheters and an oxygenation device.

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Patent document, ited in search report		Publication date		Patent family member(s)	Publication date
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